



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SUPERFUND SITE STRATEGY RECOMMENDATION - REGION 06



Site Name: Leo Miller Road Site

CERCLIS ID#: TXN000606818

Alias Site Name: NA

Address: Intersection between State Highway 188 and Leo Miller Road

City/County or Parish/State/Zip: Taft/Aransas & San Patricio Counties/Texas/78390

Report Type: Site Inspection

Date: February 26, 2009

Author: START - Dynamac Corp.

RECOMMENDATION:

<input checked="" type="checkbox"/> 1. No Further Remedial Action Planned Under Superfund (NFRAP)	<input type="checkbox"/> 2. Further Investigation Needed Under Superfund															
	<table><tr><td><input type="checkbox"/> PA</td><td><input type="checkbox"/> HRS</td><td>Priority: <input type="checkbox"/> High</td></tr><tr><td><input type="checkbox"/> SI</td><td><input type="checkbox"/> RI/FS</td><td><input type="checkbox"/> Low</td></tr><tr><td><input type="checkbox"/> ESI</td><td><input type="checkbox"/> RA</td><td></td></tr><tr><td><input type="checkbox"/> Other:</td><td colspan="2"></td></tr><tr><td colspan="3">To be performed by: _____</td></tr></table>	<input type="checkbox"/> PA	<input type="checkbox"/> HRS	Priority: <input type="checkbox"/> High	<input type="checkbox"/> SI	<input type="checkbox"/> RI/FS	<input type="checkbox"/> Low	<input type="checkbox"/> ESI	<input type="checkbox"/> RA		<input type="checkbox"/> Other:			To be performed by: _____		
<input type="checkbox"/> PA	<input type="checkbox"/> HRS	Priority: <input type="checkbox"/> High														
<input type="checkbox"/> SI	<input type="checkbox"/> RI/FS	<input type="checkbox"/> Low														
<input type="checkbox"/> ESI	<input type="checkbox"/> RA															
<input type="checkbox"/> Other:																
To be performed by: _____																
<input type="checkbox"/> 3. Action Deferred to: <input type="checkbox"/> RCRA <input type="checkbox"/> NRC																
<input type="checkbox"/> 4. Site Being Addressed Under the State Voluntary Cleanup Program (VCP): <input type="checkbox"/> Yes <input type="checkbox"/> No																

NOTIFY AUTHORITY:

<input type="checkbox"/> Removal	<input type="checkbox"/> RCRA	<input type="checkbox"/> TSCA	<input type="checkbox"/> CAA	<input type="checkbox"/> SMCRA
<input type="checkbox"/> Remedial	<input type="checkbox"/> State/Tribe	<input type="checkbox"/> NPDES	<input type="checkbox"/> NRC	<input type="checkbox"/> Resource Trustee: _____
<input type="checkbox"/> CERCLA Enforcement	<input type="checkbox"/> Federal Facility	<input type="checkbox"/> UIC	<input type="checkbox"/> SPCC	<input type="checkbox"/> Other: _____
SEND SSSR COPIES TO: <input type="checkbox"/> 6SF-AC <input type="checkbox"/> 6WQ-SP <input type="checkbox"/> ATSDR <input checked="" type="checkbox"/> State Agency <input type="checkbox"/> Tribal Agency				

DISCUSSION:

The Leo Miller Road Site consists of residences along Leo Miller road and the four Sherwin Alumina Company (SAC) red mud beds (RMBs) located east of Leo Miller Road, known by SAC as the "204 Facility". SAC's 204 Facility occupies approximately 3,316 acres. The Leo Miller Road Site is bisected by the Aransas/San Patricio County Line. Leo Miller Road is approximately 1 mile in length and runs in a southwest to northeast direction. The Leo Miller Road Site is bounded by rural land and Copano Bay to the north, rural land to the south and by rural agricultural land to the west. State Highway 188 bisects the site, and Port Bay is located east of the site. SAC disposes of residue resulting from the processing of bauxite ore into two of the four RMBs. This residue is commonly referred to as "red mud" or "red mud residue." The red mud residue consists of a very fine particulate solid of less than 2.5 microns, with over 50% less than 1 micron in size. Citizens living along Leo Miller Road have claimed that, during dry and windy conditions, red mud residue entrained in the wind has caused skin irritations and respiratory illnesses (such as COPD, bronchitis, lung cancer, bronchial spasms, asthma, siderosis, pneumoconiosis), burning in the eyes, skin, nose, and throat, exacerbation of allergies, sinusitis, digestive problems, headaches, nose bleeds, lethargy and fatigue, a persistent cough, hypertension, Alzheimer's and beryllium diseases.

The red mud residue is transported by to RMB's 1 and 2 either by pipeline or trucks. According SAC representatives, the majority of the red mud is conveyed to RMB's 1 and 2 via an underground pipeline. SAC representatives stated that a trucking company is occasionally used to transport red mud residue to RMB's 1 and 2. Citizens residing in the vicinity of the RMB's contend that trucks transport red mud residue from the SAC facility to RMB's 1 and 2 on a frequency of one truckload per hour, for eight hours a day, seven days a week. RMB 3 is not currently in use and RMB 4 is used for storm



water surge detention. Samples of the red mud residue collected during the Site Inspection (SI) detected aluminum; arsenic; cadmium; calcium; chromium; copper; iron; lead; manganese; mercury; nickel; silicon; sodium; vanadium; and zinc.

During the SI, groundwater samples from three residences located on Leo Miller Road were collected. The groundwater samples were collected from private, domestic water wells. In addition, one background sample was collected from a private, domestic water well located in Ingleside, TX. Analytical results indicate manganese and zinc have been detected in concentrations that qualify as an observed release to the Groundwater Migration Pathway. However, before a release can be determined, further documentation may be needed to determine if the background well was screened in the aquifer associated with the residential well in which the manganese and zinc were detected. At the time of the SI, none of the residents interviewed along Leo Miller Road used groundwater as their source of drinking water.

The residents along Leo Miller Road are located northwest of RMB 1 and 2. The annual prevailing wind direction is from the southeast to the northwest, thus, the residents are located downwind of RMB 1 and 2. According to residents along Leo Miller Road, the community experiences large exposures of windblown dust on a regular for at least 8 to 12 months a year. It has been reported that the homes and lawns have become covered in red mud dust during the frequent dust storms. The residents have made several complaints to the TCEQ Corpus Christi office concerning the windblown dust. The TCEQ has investigated the complaints and have found no evidence to substantiate these complaints. One land owner has video graphic documentation of the red dust being blown from the red mud lagoons toward their residence.

During the SI field activities, red dust was observed coating the exterior surfaces of the residential homes and other structures at the properties visited along Leo Miller Road. In addition, a red mud-like substance was observed in a swimming pool maintained at one of the residences along Leo Miller Road. Red dust was also observed on window sills and counter/table tops inside residential homes located on Leo Miller Road. During the SI, wipe samples were collected from inside window ledges of three residential homes located along Leo Miller Road. Two background wipe samples were collected from a residence located in Ingleside, TX, which is approximately 8 miles south of the site. Exceedances greater than three times the background sample for aluminum, antimony, barium, cadmium, chromium, iron, lead, magnesium, manganese, and nickel were detected in the wipe samples. The area surrounding the site is sparsely populated. The distance to the nearest individual or regularly occupied building (on Leo Miller Road) is approximately 0.5 miles west of RMBs 1 and 2.

Based on the data presented in the SI report, this site does not meet all the criteria necessary for listing on the NPL under the federal Superfund program. It is recommended that the site be deferred to the State of Texas for additional investigation under the State Superfund program administered by the TCEQ. Accordingly the site will be given the designation of "No Further Remedial Action Planned" (NFRAP). This designation does not preclude future federal involvement with the site should site conditions change or a request be made by the State.

APPROVALS:

Report Reviewed by: Bret Kendrick
(Site Assessment Manager)

Signature: 

Date: 06/01/09

Disposition
Approved by: John Meyer
(Section Chief 6SF-TR)

Signature: 

Date: 7/28/09